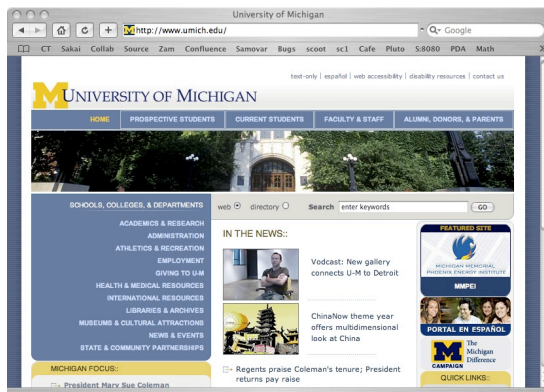


Chapter 3 - CSS

Charles Severance
www.dr-chuck.com

These slides intended for use with the text book, “Building your Own Web Site the Right Way Using HTML & CSS” by Ian Lloyd, and Available from Sitepoint books.

The big picture...



In the modern era of web design
we represent content and
meaning in HTML an formatting
and layout in CSS.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//
EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
<head>
<title>University of Michigan</title>
....
```

```
@import "/CSS/graphical.css"/**/;
p.text strong, .verbose, .verbose p, .verbose h2{text-
indent:-876em;position:absolute}
p.text strong a{text-decoration:none}
p.text em{font-weight:bold;font-style:normal}
div.alert{background:#eee;border:1px solid red;padding:.
5em;margin:0 25%}
a img{border:none}
.hot br, .quick br, dl.feature2 img{display:none}
div#main label, legend{font-weight:bold}
```

Separation of concerns / specialization

Developer

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
<head>
<title>University of Michigan</title>
....
```

Designer

```
@import "/CSS/graphical.css"/**/;
p.text strong, .verbose, .verbose p, .verbose h2{text-
indent:-876em;position:absolute}
p.text strong a{text-decoration:none}
p.text em{font-weight:bold;font-style:normal}
div.alert{background:#eee;border:1px solid
...

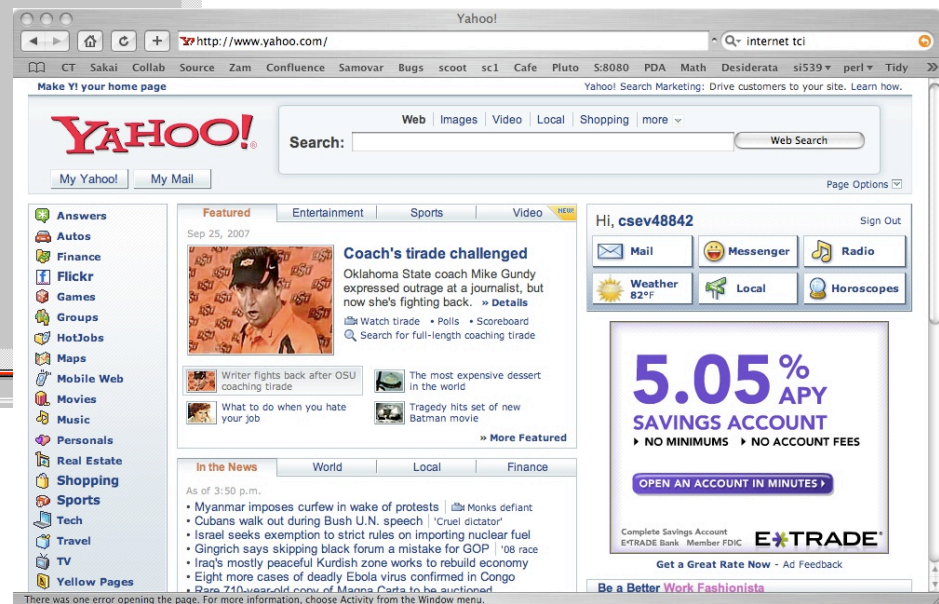
```

Everyone needs to know some HTML and some CSS and some programming - but to be truly skilled at a professional level requires deep understanding and specialization.



1995

HTML has evolved a *lot* over the years - as computers and networks have gotten faster.



2007

History of HTML / CSS

- HTML 1.0 - 1993 - The Good Old Days - life was simple
- HTML 2.0 - 1995 - Some interesting layout features - abused
- CSS 1 - 1996
- HTML 3.2 - 1997
- HTML 4.0 - 1997 - Layout moving toward CSS
- CSS Level 2 - 1998
- HTML 4.01 - 1999 - What we use today

HTML has evolved a **lot** over the years - as computers and networks have gotten faster.

Designing for the Real World....

| 2007 | IE7 | IE6 | IE5 | Fx | Moz | S | O |
|-----------|-------|-------|------|-------|------|------|------|
| December | 21.0% | 33.2% | 1.7% | 36.3% | 1.4% | 1.7% | 1.4% |
| November | 20.8% | 33.6% | 1.6% | 36.3% | 1.2% | 1.8% | 1.6% |
| October | 20.7% | 34.5% | 1.5% | 36.0% | 1.3% | 1.7% | 1.6% |
| September | 20.8% | 34.9% | 1.5% | 35.4% | 1.2% | 1.6% | 1.5% |
| August | 20.5% | 35.7% | 1.5% | 34.9% | 1.3% | 1.5% | 1.7% |
| July | 20.1% | 36.9% | 1.5% | 34.5% | 1.4% | 1.5% | 1.9% |
| June | 19.7% | 37.3% | 1.5% | 34.0% | 1.4% | 1.5% | 1.8% |
| May | 19.2% | 38.1% | 1.6% | 33.7% | 1.3% | 1.5% | 1.7% |
| April | 19.1% | 38.4% | 1.7% | 32.9% | 1.3% | 1.5% | 1.6% |
| March | 18.0% | 38.7% | 2.0% | 31.8% | 1.3% | 1.6% | 1.6% |
| February | 16.4% | 39.8% | 2.5% | 31.2% | 1.4% | 1.7% | 1.5% |
| January | 13.3% | 42.3% | 3.0% | 31.0% | 1.5% | 1.7% | 1.5% |

| 2002 | IE6 | IE5 | AOL | N3 | N5 | N4 | IE4 |
|-----------|-------|-------|------|------|------|------|------|
| November | 53.5% | 29.9% | 5.2% | 1.1% | 4.9% | 2.0% | |
| September | 49.1% | 34.4% | 4.5% | 1.3% | 4.5% | 2.2% | |
| July | 44.4% | 40.1% | 3.5% | 1.2% | 3.5% | 2.6% | 0.5% |
| May | 40.7% | 46.0% | 2.8% | 1.2% | 2.7% | 3.4% | 0.7% |
| March | 36.7% | 49.4% | 3.0% | 1.2% | 2.4% | 4.1% | 0.7% |
| January | 30.1% | 55.7% | 2.8% | 1.3% | 2.2% | 4.4% | 1.0% |

| 2007 | JavaScript On | JavaScript Off |
|---------|---------------|----------------|
| January | 94% | 6% |
| | | |
| 2006 | | |
| July | 92% | 8% |
| January | 90% | 10% |
| | | |
| 2005 | | |
| July | 90% | 10% |
| January | 89% | 11% |
| | | |
| 2004 | | |
| July | 90% | 10% |
| January | 92% | 8% |
| | | |
| 2003 | | |
| July | 89% | 11% |
| January | 89% | 11% |
| | | |
| 2002 | | |
| October | 88% | 12% |

www.w3schools.com/browsers/browsers_stats.asp

Inline Styles

<p>A sentance.</p>

<p style="color: red; font-weight: bold;">

The quick brown fox jumps over the lazy
dog.</p>

<p>Another sentance.</p>

A sentance.

The quick brown fox jumps over the lazy dog.

Another sentance.

Span when there is no block

Bubble Under is a group of diving enthusiasts based in the south-west UK who meet up for diving trips in the summer months when the weather is good and the bacon rolls are flowing. We arrange weekends away as small groups to cut the costs of accommodation and travel and to ensure that everyone gets a trustworthy dive buddy.

Bubble Under is a group of diving enthusiasts based in the south-west UK who meet up for diving trips in the summer months when the weather is good and the bacon rolls are flowing. We arrange weekends away as small groups to cut the costs of accommodation and travel and to ensure that everyone gets a trustworthy dive buddy.

Embedded Style

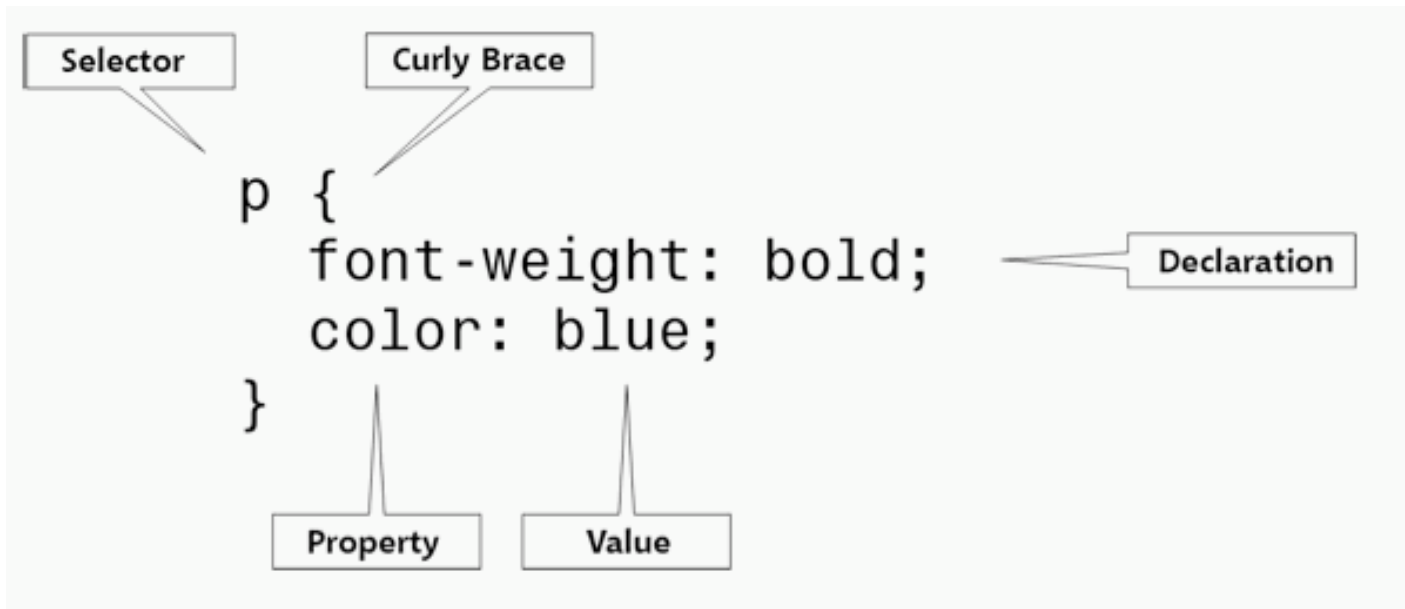
```
<head>
  <title>Bubble Under - The diving club for the south-west UK</title>
  <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
  <style type="text/css">
    p {
      font-weight: bold;
    }
  </style>
</head>
<body>
  <h1>A Header</h1>
  <p>A Paragraph</p>
  <p>Another</p>
```

A Header

A Paragraph

Another

Anatomy of a CSS Rule



External Style Sheets

```
<head>
  <title>Bubble Under - The diving club for the
south-west UK</title>
  <meta http-equiv="Content-Type"
content="text/html; charset=utf-8" />
  <link href="ext.css" rel="stylesheet" type="text/css" />
</head>
<body>
<h1>A Header</h1>
<p>A Paragraph</p>
<p>Another</p>
</body>
```

A Header

A Paragraph

Another

```
/*
CSS for Bubble Under site
*/
p {
  font-weight: bold;
  color: blue;
}
```

CSS

```

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>Bubble Under - The diving club for the south-west UK</title>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
    <link href="style1.css" rel="stylesheet" type="text/css" />
  </head>
  <body>
    <div id="header">
      <div id="sitebranding">
        <h1>BubbleUnder.com</h1>
      </div>

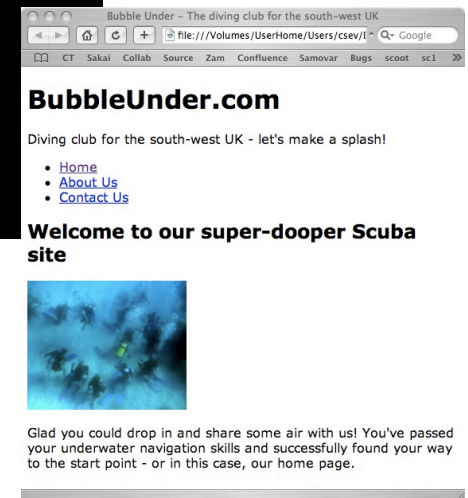
```

We have styled the site *after* the HTML was produced.

```

/*
CSS for Bubble Under site
*/
body {
  font-family: Verdana;
}

```



```
body {  
  font-family: Verdana, Helvetica, Arial, sans-serif;  
  background-color: #e2edff;  
  line-height: 125%;  
  padding: 15px;  
}  
h1 {  
  font-family: "Trebuchet MS", Helvetica, Arial, sans-serif;  
  font-size: x-large;  
}  
li {  
  font-size: small;  
}  
h2 {  
  color: blue;  
  font-size: medium;  
  font-weight: normal;  
}  
p {  
  font-size: small;  
  color: navy;  
}
```

Now we are stylin'

BubbleUnder.com

Diving club for the south-west UK - let's make a splash!

- [Home](#)
- [About Us](#)
- [Contact Us](#)

Welcome to our super-doooper Scuba site



Glad you could drop in and share some air with us! You've passed your underwater navigation skills and successfully found your way to the start point - or in this case, our home page.

Body Styling

```
body {  
  font-family: Verdana, Helvetica, Arial, sans-serif;  
  background-color: #e2edff;  
  line-height: 125%;  
  padding: 15px;  
}
```

This applies to everything in the document between `<body>` and `</body>` - it is inherited by paragraphs within body

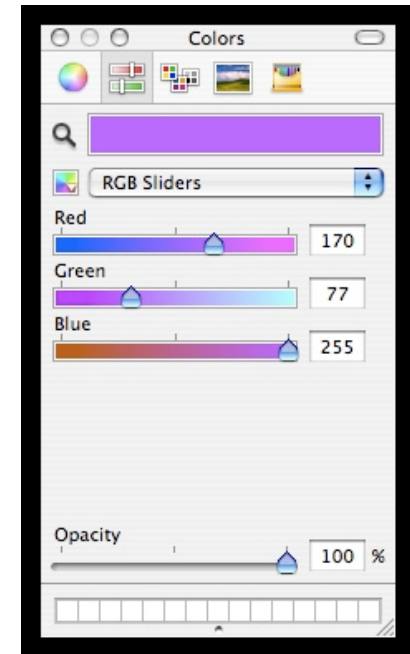
Colors...

Three Numbers,
Red, Green , and
Blue - each from 00
- FF (Hexidecimal)

#ffffff = white
#000000 = black
#ff0000 = red
#00ff00 = green
#0000ff = blue

#e2edff

| Color Name | Color HEX | Color |
|--------------------------------|-------------------------|-------|
| AliceBlue | #F0F8FF | |
| AntiqueWhite | #FAEBD7 | |
| Aqua | #00FFFF | |
| Aquamarine | #7FFFD4 | |
| Azure | #F0FFFF | |
| Beige | #F5F5DC | |
| Bisque | #FFE4C4 | |
| Black | #000000 | |
| BlanchedAlmond | #FFEBCD | |
| Blue | #0000FF | |
| BlueViolet | #8A2BE2 | |
| Brown | #A52A2A | |



Web-safe
colors

http://www.w3schools.com/css/css_colornames.asp

Web-Safe Colors

- In the old days some computers had only 256 colors simultaneously
- There were 216 agreed on web-safe colors
- For now - historical factoid

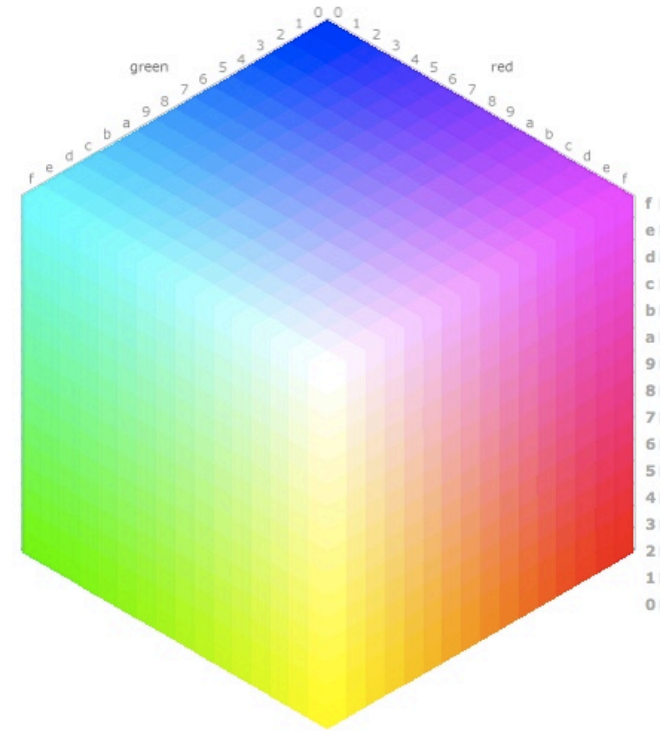
http://www.w3schools.com/html/html_colors.asp

| | | | | | |
|--------|--------|--------|--------|--------|--------|
| 000000 | 000033 | 000066 | 000099 | 0000CC | 0000FF |
| 003300 | 003333 | 003366 | 003399 | 0033CC | 0033FF |
| 006600 | 006633 | 006666 | 006699 | 0066CC | 0066FF |
| 009900 | 009933 | 009966 | 009999 | 0099CC | 0099FF |
| 00CC00 | 00CC33 | 00CC66 | 00CC99 | 00CCCC | 00CCFF |
| 00FF00 | 00FF33 | 00FF66 | 00FF99 | 00FFCC | 00FFFF |
| 330000 | 330033 | 330066 | 330099 | 3300CC | 3300FF |
| 333300 | 333333 | 333366 | 333399 | 3333CC | 3333FF |
| 336600 | 336633 | 336666 | 336699 | 3366CC | 3366FF |
| 339900 | 339933 | 339966 | 339999 | 3399CC | 3399FF |
| 33CC00 | 33CC33 | 33CC66 | 33CC99 | 33CCCC | 33CCFF |
| 33FF00 | 33FF33 | 33FF66 | 33FF99 | 33FFCC | 33FFFF |
| 660000 | 660033 | 660066 | 660099 | 6600CC | 6600FF |
| 663300 | 663333 | 663366 | 663399 | 6633CC | 6633FF |
| 666600 | 666633 | 666666 | 666699 | 6666CC | 6666FF |
| 669900 | 669933 | 669966 | 669999 | 6699CC | 6699FF |
| 66CC00 | 66CC33 | 66CC66 | 66CC99 | 66CCCC | 66CCFF |
| 66FF00 | 66FF33 | 66FF66 | 66FF99 | 66FFCC | 66FFFF |
| 990000 | 990033 | 990066 | 990099 | 9900CC | 9900FF |
| 993300 | 993333 | 993366 | 993399 | 9933CC | 9933FF |
| 996600 | 996633 | 996666 | 996699 | 9966CC | 9966FF |
| 999900 | 999933 | 999966 | 999999 | 9999CC | 9999FF |
| 99CC00 | 99CC33 | 99CC66 | 99CC99 | 99CCCC | 99CCFF |
| 99FF00 | 99FF33 | 99FF66 | 99FF99 | 99FFCC | 99FFFF |
| CC0000 | CC0033 | CC0066 | CC0099 | CC00CC | CC00FF |
| CC3300 | CC3333 | CC3366 | CC3399 | CC33CC | CC33FF |
| CC6600 | CC6633 | CC6666 | CC6699 | CC66CC | CC66FF |
| CC9900 | CC9933 | CC9966 | CC9999 | CC99CC | CC99FF |
| CCCC00 | CCCC33 | CCCC66 | CCCC99 | CCCCCC | CCCCFF |
| CCFF00 | CCFF33 | CCFF66 | CCFF99 | CCFFCC | CCFFFF |
| FF0000 | FF0033 | FF0066 | FF0099 | FF00CC | FF00FF |
| FF3300 | FF3333 | FF3366 | FF3399 | FF33CC | FF33FF |
| FF6600 | FF6633 | FF6666 | FF6699 | FF66CC | FF66FF |
| FF9900 | FF9933 | FF9966 | FF9999 | FF99CC | FF99FF |
| FFCC00 | FFCC33 | FFCC66 | FFCC99 | FFCCCC | FFCCFF |
| FFFF00 | FFFF33 | FFFF66 | FFFF99 | FFFFCC | FFFFFF |

Web-Smart Colors

- Web-smart colors are 4096 colors which should easily display accurately on all systems with > 256 colors
- Web smart colors simply use any combination of 00, 11, 22, ... cc, dd, ee, ff
- #0055ee

<http://www.morecrayons.com/palettes/webSmart>
<http://www.weborum.com/color/wheel.html>



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Fonts

- Default fonts are ugly and they have Serifs - which make them harder to read on a screen
- So the first thing I usually want to do is override the font in my document
- And I want to do this everywhere.

Header One


Paragraph about ugly default fonts.

Figure 3.5. Highlighting the serifs of a serif font (Georgia)



Fonts

body {
 font-family: "Trebuchet MS", Helvetica, Arial, sans-serif;
 font-size: x-large;
}

Most Favourite  Least Favourite

Fallback fonts: serif, sans-serif, monospace, cursive and fantasy.

Font Factors

font-size:

xx-small

x-small

small

medium

large

x-large

xx-large

font-weight: bold or normal

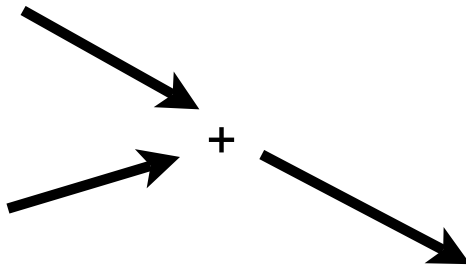
font-style: normal or italic

text-decoration: none, underline, overline, or
line-through

Reaching into Markup

<p>And when we're not diving, we often meet up in a local pub to talk about our recent adventures (any excuse, eh?).</p>

```
em {  
  font-style: normal;  
  text-transform: uppercase;  
}
```



And when we're not diving,
we often meet up in a local
pub
to talk about our recent
adventures (ANY excuse,
eh?).

Styling Links

```
a {  
  font-weight: bold;  
}  
a:link {  
  color: black;  
}  
a:visited {  
  color: gray;  
}  
a:hover {  
  text-decoration: none;  
  color: white;  
  background-color: navy;  
}  
a:active {  
  color: aqua;  
  background-color: navy;  
}
```

- link - before a visit
- visited - after it has been visited
- hover - when your mouse is over it but you have not clicked
- active - you have clicked it and you have not yet see the new page

Browser default styling for links is downright ugly!

Styling a block with “id”

Everything within block

```
#tagline {  
  font-style: italic;  
  font-family: Times, serif;  
}
```

or

Paragraphs within block

```
#tagline p {  
  font-style: italic;  
  font-family: Times, serif;  
}
```

```
<div id="tagline">  
  <p>Diving club for the south-west UK - let's make a splash!</p>  
</div>
```

id= identifies a **particular** block - only one in a document

Multiple tags with same styling

```
h1, h2, h3 {  
  color: yellow;  
  background-color: black;  
}
```

Making a noticeable background color is a fun way to debug / identify blocks.

Last rule wins (when Identical)

Ignored

```
h2 {  
  color: blue;  
  font-size: medium;  
  font-weight: normal;  
}  
em {  
  text-transform: uppercase;  
}
```

Used

```
h1, h2, h3 {  
  font-family: "Helvetica, Arial, sans-serif";  
  background-color: navy;  
  color: white;  
}
```

This feature is a bit “quirky” in some browsers.

Styling with class=

```
.fun {  
  color: #339999;  
  font-family: Georgia, Times, serif;  
  letter-spacing: 0.05em;  
}
```

Class can be used many
times in a document.

```
<p class="fun">A man walks into a bar; you  
would've thought he'd see it coming!</p>  
  <p>Have a nice day.<p>  
<p class="fun">More fun stuff</p>
```

Scoping Classes / Inheritance

```
.fun {  
  font-family: Times, serif;  
  color: #339999;  
  letter-spacing: 0.05em;  
}
```

```
blockquote.fun {  
  font-style: italic;  
}
```

```
<p class="fun"> I am outside</p>  
<blockquote>  
  <p class="fun"> I am inside</p>  
</blockquote>
```

Both apply to "I am inside" - the styles "Cascade" or "tumble down"...

Span (Invisible tag)

`<p>Bubble Under is a group of diving enthusiasts based in the south-west UK who meet up for diving trips in the summer months when the weather is good and the bacon rolls are flowing. We arrange weekends away as small groups to cut the costs of accommodation and travel and to ensure that everyone gets a trustworthy dive buddy.</p>`

Something you want to style something smaller than a whole block - then use span. Do not use span if you are applying something to a whole block - just put your styling on the enclosing block tag.

Don't Overuse Span/Div

- Don't add unnecessary div tags when you already have a block tag to add a class to
- Don't invent your own spans when something exists that will work

```
<div class="important">  
  <p>  
    This is  
    <span class="heavy">a</span>  
    paragraph.  
  </p>  
</div>
```

```
<p class="important">  
  This is <strong>a</strong>  
  paragraph.  
</p>
```

Quick Advertisement - Firefox

- You pretty much need to use Firefox for serious website development
- Important plugins:
 - Web Developer - Chris Pedrick
 - FireBug - Joe Hewitt

<http://addons.mozilla.org/>

dr-chuck.com

http://www.dr-chuck.com/

Latest Headlines Sakai dr-chuck.com NWA Chuck's Media Sakai Based Service... iPhone Navigation Personal Learning an...

Disable Cookies CSS Forms Images Information Miscellaneous Outline Resize Tools View Source Options

Charles Severance

Quick Links

Chuck's TV and Media

Chuck's Talks

Chuck's Book

Chuck's Columns

Resume and Bio

Blog (26-Nov 11:44)

Chuck's Papers

UM School of Information

Sakai Planet Blog

More of dr-chuck's photos

www.flickr.com

This site contains a bunch of stuff including software, tele... miscellaneous material. This also includes a number of activities and s... my good friend Richard Wiggins.

Recent Video: John Merlin Williams Goes Street Racin

Recent Video: Dr. Chuck Goes Motocross Racing on hi

Teaching

SI 182 - Building Applications for Information Environments

SI 539 - Design of Complex Web Sites (Rails)

SI 543 - Introductory Programming (Java) (Login)

See also www.rubylearn.com and my raw course podcasts

Web/Multimedia sites

A Film About Brent and His ATV

How to Install a hardwood floor in 4 minutes!

Dr. Chuck goes motocross racing (2007)

Dr. Chuck goes stock car racing (2002)

Audition Tape which we sent to TechTV which was rejected :(. Making a Simple Cartoon Three short animations from Chuck and Brent. Nuthin' But Net A Television show

NewsTalk 870 - Rich and I were on the radio once per month from the mid 90's through 2004.

More Multimedia Projects...

Software Tools

PHP Image software for v300 and Treo-600 SMS

ClipBoard-2000 - Distance Education Software

Sync-O-Matic 2000 - Distance Education Software

Other software Tools

Projects

Practical Home Networking - A book that Chuck and Rich almost got written. (Version 1,

Outline Frames

Outline Headings

Outline Links

Outline Tables

Outline Block Level Elements

✓ Outline Deprecated Elements

Outline Positioned Elements

Outline Current Element

Outline Custom Elements...

✓ Show Element Names When Outlining

Sakai Planet Blog

Produced: June 6, 2006 This video was taped while are the Sakai meeting in Vancouver. Johan discusses their upcoming project to integrate uPortal and Sakai to produce the UNISA campus portal. Johan attended both the Sakai and JA-Sig meetings and described the UNISA approach to both communities. Details: 3 minutes, Windows Media 300 kbps.

This is a randomly selected show


Done

Personal Learning and Reflection Environment

http://localhost:3000/portal/index/1

Latest Headlines Sakai dr-chuck.com NWA Chuck's Media Sakai Based Service... iPhone Navigation Personal Learning an...

Disable Cookies CSS Forms Images Information Miscellaneous Outline Resize Tools View Source



Toozday Personal Learning Environment (11.0)

You are logged in as admin (logout)

All Sites My Profile Current Site: Fun Wiki Comments

The wiki page named Main in site Fun does not exist. Wiki links are words surrounded by square brackets like SubPage.

Edit

/ajax.1.primary-content/wiki/view

Recent Comments

Most excellent.
By admin | 26 Nov 2007 12:09PM | [view](#)

[Add Comment](#) | [Manage](#)

Inspect Edit body < html

Console HTML CSS Script DOM Net Options

```
<a id="content-target" class="skip" name="content-target">Content begins here</a>
<div id="primary-content">
  <div class="wiki-content">
    <p>
      <div class="primary-content-current">/ajax.1.primary-content</div>
    </div>
    <div id="right-content">
```

Style Layout DOM Options

```
body {
  font-family: "Helvetica Neue", Helvetica, Geneva, Arial, sans-serif;
  font-size: 0.85em;
  margin: 0pt;
  padding: 0pt;
}
```

Done

Later - we visit...

- Advanced - Positioning and layout - a whole new skill

Summary

- Thankfully we can assume that browsers in the marketplace have decent support for CSS
- So we can switch to the best practice
 - HTML contains content and semantic markup
 - CSS styles the tags and semantics
- This is a really quick overview - use the web or a book to get more detail